

**APPARATUS FOR TUMOR DIAGNOSIS AND METHODS THEREOF****ABSTRACT OF THE DISCLOSURE**

A method and apparatus for differentiating in a given area of tissue a tumorous tissue from a normal tissue, the method comprising measuring a plurality of tissue impedance over a range of tissue temperatures and comparing the measured tissue impedance with reference tissue impedance of the normal tissue adapted for tissue differentiation. The management of tissue temperatures may be accomplished with a probe arrangement comprising two elements of different electromotive potential conductively connected at a probe junction, and passing an electrical current through the elements to reduce or raise a temperature of the probe junction in accordance with the Peltier effect.